

1. The after-final amendment filed on 3/31/10 is entered and made of record.

2. Reasons for Allowance

Claims 33-36 are allowable.

With regards to **claim 33**, the examiner cannot find any applicable prior art providing teachings for the following limitations: means for applying a data compression technique to the analyzed data set such that the compressed analyzed data set has high fidelity in regions of interest and has lower fidelity in regions of lesser interest, the data compression technique produces high fidelity in geometric regions of interest at points in time of interest, the geometric region has at least one of a stress field and a deformation rate and the geometric region **in combination** with the rest of the limitations of claim 33.

With regards to claim 34, see the rationale for claim 33.

With regards to claim 35, the examiner cannot find any applicable prior art providing teachings for the following limitations: means for analyzing the data set such that the analysis has high fidelity regions of interest and has lower fidelity in regions of lesser interest, the data compression technique allows the analysis to take place in high fidelity in geometric regions of interest at points in time of interest, the geometric region has at least one of a stress field and a deformation rate and the geometric region has at least

one of a **rapid change in the stress field**, a high stress field or a high deformation rate **in combination** with the rest of the limitations of claim 35.

With regards to claim 36, see the rationale for claim 35.

3. Relevant Art

Go (US pat no 5,949,910):

Go discloses a computer system programmed to process a large data set (an image contains large amount of pixel data) includes means for analyzing the data set and means for applying a data compression technique to the analyzed data set such that the compressed analyzed data set (see column 2, lines 43-48) has high fidelity in regions of interest and has lower fidelity in regions of lesser interest (column 1, lines 47-60, an image inherently contains high and low frequency components) wherein the computer system also comprises means to automatically select a variable from the data set such that a high rate of change of the variable indicates the regions of interest and a low rate of change of the variable indicates the regions of lesser interest (column 7, lines 5-14, Xc is the selected variable, a high pass/sharpening filter is applied to the pixel Xc, to detect whether Xc is an edge pixel or a non-edge pixel, if it is an edge pixel it has a high rate of change between current pixel and its neighbor pixel, if is not an edge pixel then the rate of change between the current pixel and its neighboring pixel is low).

Go does not disclose applying data compression technique on a place in high fidelity in geometric regions of interest at points in time of interest, wherein the geometric region has at least one of a stress field and a deformation rate and the geometric region has at least one of **a rapid change in the stress field**, a high stress field or a high deformation rate.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX LIEW whose telephone number is (571)272-8623 or cell (917)763-1192. The examiner can be reached anytime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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4/17/10

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